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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,309	04/21/2004	Yasuo Aotsuka	0649-0956P	4794

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EXAMINER

WHIPKEY, JASON T

ART UNIT	PAPER NUMBER
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2622

NOTIFICATION DATE	DELIVERY MODE
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08/13/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/828,309

Applicant(s)

AOTSUKA, YASUO

Examiner

Jason T. Whipkey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which Applicant may become aware in the specification.

Drawings

3. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 3, 4, and 6-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 3, 5, 1, and 1, respectively, of copending Application No. 10/718,622.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 3, 4, and 6-8 are broader recitations of claims 1, 2, 3, 5, 1, and 1, respectively, in the co-pending application. Therefore, the claims in the instant application are encompassed by the claims in the application. A terminal disclaimer is necessary so as to ensure that any two resulting patents are commonly owned throughout their lifetimes.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Morimoto (Japanese Patent Publication No. 07-143513).

Regarding **claims 1, 6, 7, and 8**, Morimoto discloses a solid-state imaging apparatus (see Drawing 1 in the provided computer translation) comprising:

a solid-state imaging device (image sensor 1 and color separation section 2) having a plurality of pixels that image light originating from a subject, by dividing the light into a plurality of color signals (see page 3, lines 6-10); and

a signal processor (gain controller 3) that subjects photographed image data output from the solid-state imaging device to white balance correction at a gain corresponding to light source types (see page 4, lines 1-6),

wherein the solid-state imaging device further comprises a sensor (the pixels inherently included on image sensor 1) that detects light in a wavelength range which induces a difference having a predetermined value or more between radiant energy of a first light source and radiant energy of a second light source (see page 4, lines 14-21), the sensor being provided on the surface of the solid-state imaging device; and

wherein the signal processor further comprises: a mixing ratio estimation unit (white balance operation part 4) that determines a mixing ratio between illumination light originating from the first light source and illumination light originating from the second light source (see page 4, lines 14-15), through use of a detection signal output from the sensor; and a gain computation unit that computes a gain where the white balance correction is to be effected, in accordance with the mixing ratio (see page 6, lines 2-9).

Regarding **claim 4**, Morimoto discloses:

the signal processor comprises a light source type determination unit that determines the type of a light source from the photographed image data (see page 5, line 44, through page 6, line 2).

Regarding **claim 5**, Morimoto discloses:

the sensor acts also as the pixel that images the color signal (as shown in the drawings, the image signal is used to perform the white balancing calculations).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto in view of Kitajima (U.S. Patent No. 5,808,681).

Claim 2 can be treated like claim 1. However, Morimoto is silent with regard to the mixing ratio and the gain being determined with respect to each of the pixels.

Morimoto discloses an electronic still camera that performs automatic white balancing, wherein:

the mixing ratio (see column 5, lines 24-27) and the gain (see column 5, lines 31-35) are determined with respect to each of the pixels.

As suggested in column 9, lines 8-27, an advantage of calculating a ratio between two light sources and a gain for each pixel is that a more accurate white balance calculation can be produced. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Morimoto's system perform these calculations on a per-pixel basis.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto in view of Yamada (U.S. Patent Application Publication No. 2002/0012463).

Claim 3 can be treated like claim 1. While Morimoto discloses correcting color using a mixing ratio, he is silent with regard to correcting a color tone by multiplying color difference signals by a color difference matrix and correcting coefficients of the matrix.

Yamada discloses an imaging device (see Figure 1), wherein:

the signal processor comprises: a color tone correction unit (color correcting section 22) for correcting a color tone by multiplying color difference

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signals determined from the photographed image data by a color difference matrix (see paragraph 39); and

a color difference matrix correction unit (matrix coefficient setting section 20) for correcting coefficients of the color difference matrix (by way of lightness detecting section 20; see paragraph 39).

An advantage of using color difference matrices and correcting coefficients is that color correction values can be produced with fewer system resources. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Morimoto's system use color difference matrices and correcting coefficients, as described by Yamada.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Whipkey, whose telephone number is (571) 272-7321. The examiner can normally be reached Monday through Friday from 9:00 A.M. to 5:30 P.M. eastern daylight time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye, can be reached at (571) 272-7372. The fax phone number for the organization where this application is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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August 6, 2007



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